

ABSTRACT OF THE DISCLOSURE

Systems and methods are provided that facilitate automatic convergence and geometry alignment in projection systems. Preferably, an optical element such as a lens array is coupled to all areas of the projection system's screen and to a detector element such as a photocell array. In operation, each lens of the lens array is adapted to map an individual portion or region of the screen onto the photocell array. A microprocessor, controller or the like uses the data output from the photocells to instruct an alignment controller to center or steer the beams to compensate for convergence error at a particular location. In a center alignment mode, four (4) or more beacon dots located about the periphery of the screen are detected to determine screen size and position, which is used to center the video image and the centers of the mapped regions on the screen.